

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,289,552 B2  
APPLICATION NO. : 10/644361  
DATED : October 30, 2007  
INVENTOR(S) : Kwak et al.

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**ON THE TITLE PAGE**

At section (56), FOREIGN PATENT DOCUMENTS, page 1, right column, delete line 1, and insert therefor --WO 99/40698 8/1999--.

At section (56), OTHER PUBLICATIONS, page 2, right column, line 9, after the word "Journal", delete "in" and insert therefor --on--.

**IN THE DRAWINGS**

At FIG. 4B, block #56, top line, after the word "TO", delete "SLOVE" and insert therefor --SOLVE--.

At FIG. 10, block #226, top line, delete "CHOLSESKEY", and insert therefor --CHOLESKY--.

**IN THE SPECIFICATION**

At column 4, line 7, before the word "function", delete "hermetian" and insert therefor --Hermitian--.

At column 4, line 61, before the words "an upper", delete "a".

At column 4, line 66, before the word "inverse", delete "a" and insert therefor --an--.

At column 5, line 24, before the word "product", delete "kronecker" and insert therefor --Kronecker--.

At column 5, line 26, after the word "elements", delete "fil" and insert therefor --f<sub>il</sub>--.

At column 6, line 66, after the word "matrix", delete "A" and insert therefor --Λ--.

At column 7, line 44, after the word "using", delete "PFA\_FFTs", and insert therefor --PFA-FFTs--.

At column 8, line 34, before "Q by K", delete "an" and insert therefor --a--.

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At column 8, line 35, before "Q by 1", delete "an" and insert therefor --a--.

At column 8, line 48, before the word "Equation", delete "decom position" and insert therefor --decomposition--.

At column 9, line 42, before the word "inverse", delete "a" and insert therefor --an--.

At column 10, line 15, before the word "received", delete "a".

At column 10, delete Equation 35 and insert therefor  $\underline{d}^{(k)} = [d_1^{(k)} d_2^{(k)} \dots d_N^{(k)}]^T$ ,  $1 \leq k \leq K$ .

At column 11, delete Equation 41, and insert therefor  $\underline{r} = [\underline{r}_1^T \underline{r}_2^T \dots \underline{r}_M^T]^T$ .

At column 11, line 33, after "R", insert --is--.

At column 12, line 8, after " $\underline{r}^{(m)}$ , the", delete "over all" and insert therefor --overall--.

At column 12, line 23, before the word "matrix", delete "Fouriertrans form" and insert therefor --Fourier transform--.

At column 13, delete Equation 58, and insert therefor  $A_c = \left[ A_c^{(1)^T} A_c^{(2)^T} \dots A_c^{(M)^T} \right]^T$ .

At column 13, delete 5<sup>th</sup> segment of Equation 59, line 34, and insert therefor  $= F_{(K)}^H \underline{y}$ .

At column 13, line 67, before the words "is directly", delete " $\Lambda^{R(1)}$ " and insert therefor  $--\Lambda_R^{(1)}$ .

At column 14, delete Equation 65, and insert thereof  
--Forward Substitution: Find  $\underline{z}^{(1)}$  in  $G^{(1)} \underline{z}^{(1)} = \underline{x}^{(1)}$ , where  $\underline{z}^{(1)} = G^{(1)^H} \underline{y}^{(1)}$ .

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At column 15, line 3, after “F( $r_c^{(1)}$ )”, delete “F( $c^{(2)}$ )” and insert therefor --F( $r_c^{(2)}$ ),--.

Signed and Sealed this

Twenty-seventh Day of May, 2008



JON W. DUDAS  
*Director of the United States Patent and Trademark Office*